

Application No.: 09/926,377
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Art Unit: 2813

In the Claims

Claims 1-10 are shown as being cancelled and new claims 11-18 are presented in the "Amendments to the Claims."

LIST OF THE CLAIMS

Claims 1-10 (Canceled)

11. (New) A method for making a vertically integratable circuit by providing electrically conductive contacts for vertical integration while fabricating the integratable circuit itself, the vertically integratable circuit including a plurality of vertical contacts for vertical integration and active circuit elements, the method consisting essentially the steps of:

providing insulation elements along a first side in a thickness direction of a substrate bearing vertically integratable circuits;

forming at least one gap within the insulation elements along the first side of the substrate;

providing the substrate with the active circuit elements via the first side of the substrate;

filling the at least one gap with an electroconductive material from the first side to form at least one first side vertical contact;

thinning the substrate from a second side of the substrate opposite the first side;

etching at least one recess to expose at least one first side vertical contact; and

applying electroconductive material from the second side of the substrate at locations corresponding to the exposed at least one first side vertical contact to form at least one second side vertical contact.

12. (New) The method according to claim 11, wherein the substrate has a hidden insulating layer and thinning is performed up to said insulating layer.

13. (New) The method according to claim 11, wherein thinning is performed until the insulation produced for the contacts for vertical integration is reached.

14. (New) The method according to claim 11, wherein the insulation elements are produced during production of field oxide, including forming gaps in the substrate that enclose substrate material that oxidizes completely during production of the field oxide.

15. (New) The method according to claim 11, wherein the steps of forming the at least one gap within the insulation elements and the step of filling of the at least one gap with an electroconductive material are performed during production of a metalization level with associated through holes.

16. (New) A vertically integratable circuit having a plurality of vertical contacts for vertical integration and active circuit elements, the circuit comprising:

a substrate bearing vertically integratable circuits;

insulation elements provided along a first side in a thickness direction of the substrate;

at least one gap formed within the insulation elements along the first side of the substrate;

active circuit elements provided via the first side of the substrate;

at least one gap filled with an electroconductive material extending from the first side of the substrate and forming at least one first side vertical contact; and

at least one second side vertical contact formed of electroconductive material from the second side of the substrate extending therein at locations corresponding to the exposed at least one first side vertical contact.

17. (New) The vertically integratable circuit according to claim 16, wherein at least two vertically integratable circuits are connected, and electrically conductive contacts for vertical integration that are electrically connected with each other.

18. (New) A method for making a vertically integratable circuit by providing electrically conductive contacts for vertical integration while fabricating the integratable circuit itself, the vertically integratable circuit including a plurality of vertical contacts for vertical integration and active circuit elements, the method comprising the steps of:

providing insulation elements along a first side in a thickness direction of a substrate bearing vertically integratable circuits; and then

forming at least one gap within the insulation elements along the first side of the substrate;

providing the substrate with the active circuit elements via the first side of the substrate;

filling the at least one gap with an electroconductive material from the first side to form at least one first side vertical contact;

thinning the substrate from a second side of the substrate opposite the first side;

etching at least one recess to expose at least one first side vertical contact; and then

applying electroconductive material from the second side of the substrate at locations corresponding to the exposed at least one first side vertical contact to form at least one second side vertical contact.